

Refrigeration Up-Date

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AUGUST, 2002

Mechanical Refrigeration Permits

By: Travis L. Crabtree, CFPS, Deputy Fire Marshal, City of Raleigh Fire Prevention Bureau.

North Carolina adopted its first statewide Fire Prevention Code in 1991 after the tragic fire in Hamlet, NC on September 3, 1991 that killed 25 and injured 54 people due to locked exit doors. The adoption of the North Carolina Building Code, Volume -V, Fire Prevention, has many permits that are the Fire Inspectors responsibility to enforce. There are approximately 10 mandatory permits in the body of the text and 34 optional permits that are only enforceable by local ordinance adoption.

Most municipalities have adopted the optional permits by ordinance. Some charge a fee for these permits and others just issue a permit with no fees attached. These permits are deemed necessary to constitute permission to maintain,

store or handle materials, or to conduct processes which produce conditions hazardous to life or property, or to install equipment used in connection with such activities to ensure an additional level of safety.

The main permit that impacts the Refrigeration Board is section 402.21, Mechanical Refrigeration. This permit is required for all installations or operations of existing refrigeration systems containing in excess of 20 lbs. of refrigerant other than air or water without a permit. This permitting section would apply to all existing facilities and all new facilities with a building permit issued before December 31, 2001. After this date, engineers and architects have the option of using the new building (International codes) codes or using the older building codes (Volumes I through X) until the end of 2002.

One of the major

problems in the past has been that refrigeration contractors have not been stamping the poundage of refrigeration on the compressor data plate as required by code. This is complicated even more by the business/building owner not being aware of the responsible company who installed the system initially, so the records are not available. When the Fire Inspector comes for their one, two or three year state mandated fire inspection, depending on the occupancy class of the building, it is not known whether the mechanical refrigeration permit is required or not because the data plate is not filled out completely. The business/building owner now has to request a work order by a refrigeration company to evaluate his/her system and stamp the data plate correctly.

A new Fire Pre-

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SPECIAL POINTS OF INTEREST:

- North Carolina adopted its first statewide Fire Prevention Code in 1992.
- The main permit that impacts the Refrigeration Board is section 402.21, Mechanical Refrigeration.
- One of the major problems is that refrigeration contractors have not been stamping the poundage of refrigeration on the compressor data plate as required by code

The Service Technician As Doctor

The following was reprinted from the June 3rd issue of Air Conditioning/Heating/Refrigeration News.

By Peter Powell, Refrigeration Edition, ACHR News.

Michael Lecompte has a way of making a point.

He's president of RefPlus of Boucherville, PQ, Canada. The company makes condensing units. He was one of the speakers at the most recent Refrigeration Service Engineers Society (RSES) of Canada conference in Winnipeg,

MB.

Lecompte was focusing on the importance of thoroughly troubleshooting a system before taking any corrective actions. To make his point, he compared

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Suggestions for articles of interest for publication in this newsletter are welcome.

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vention Code was effective on December 31, 2001 depending on which building code the structure is being designed under. This code is sometimes referred to as the International Fire Code (IFC). It was adopted by the state and is called the North Carolina Fire Prevention Code, 2002 edition. The main permit that will effect all new installations will be section 105.6.38 This is an optional (local ordinance required) operational permit that may be required to operate a mechanical refrigeration unit or system regulated by Chapter 6, Section 606.

Section 606 references the International Mechanical Code (IMC) numerous times. There are several sections that will impact new installations such as but not limited to: Emergency signs per NFPA 704, charts and labels, refrigerant detection systems, emergency control boxes, ventilation

fans, emergency instructions, discharge locations for refrigerants, notifications to the fire department, and written records.

These will be code sections enforced by the local Fire Inspector and may or may not be known by the local Mechanical Inspector unless he/she has access to the new Fire Prevention Code or works closely with the local Fire Inspector. All of these new code sections can hamper efforts for a new business to open on time or for a new building to receive its Certificate of Occupancy.

The new Fire Prevention Code will change the way many installations are installed, maintained and permitted. All contractors are encouraged to purchase a copy of the new codes from the NC Department of Insurance/Office of the Fire Marshall, 410 N. Boylan Avenue, Raleigh, NC 27603.

Disciplinary Action By The Board

Penalties for violation of the licensing law and Board rules vary depending upon the facts and circumstances of each case.

Ken Hopkins, dba Master Controls and Service Co., Inc., Charlotte, NC.

Allegations of refrigeration contracting without a license. Letter of warning signed.

Richard J. Kerr, dba Technical Refrigeration & Air Conditioning Service, Atlantic Beach, NC.

Allegations of misconduct in the busi-

ness of refrigeration contracting in that the licensee failed to obtain permits as required by building authorities to perform refrigeration work. This constitutes a violation of NCGS §87-58(i). Consent order entered by the Board on June 24, 2002 reprimanding the licensee and imposing a civil penalty.

Philip W. Sigmon, dba Sigmon Refrigeration, Inc., Princeton, WV.

Allegations of refrigeration contracting without a license. Letter of warning signed August 16, 2002.

USA-VICA COMPETITION

The 38th Annual HVAC&R National SKILLS/USA—VICA Competition for secondary schools was held in Kansas City, Mo on the June 28th.

Nick Keziah, an 11th grader at N.F. Woods Advance Technology Center, Mooresville, NC was awarded the Gold Medal in the Heating, Ventilation, Air Conditioning and Refrigeration Competition.

His instructor, Gary Ramsey,
(Continued on page 4)



Shown above is Nick Keziah with his instructor, Gary Ramsey.

CFC TESTING SCHEDULE

HOW TO REGISTER FOR THE CFC CERTIFICATION EXAM — There are several ways to register for the CFC exam. Type I exams are available through the mail by calling the Board office for an application or you may download and print out the application from the Board's website (www.refrigerationboard.org). Other exams are available through the community colleges and known testing dates are published below. To find out if the college nearest to you is testing, please call that college.

CFC CLASS SCHEDULE — CFC classes and exams have been scheduled as follows. Additional classes will be published as they are received in this office. Please contact the individual community college if you or your employees are interested in one of these classes. Most colleges run these courses with a minimum enrollment so classes may be cancelled if enrollment is not met.

August 2002

8/10 - 2/24—Forsyth Technical CC

8/15 - 12/15—Coastal Carolina (Thursdays 8-9 pm)

8/19 - 10/7—Coastal Carolina (Mondays 6-8 pm)

September 2002

9/7 - 9/21—Forsyth Technical CC

9/9 - 9/30— Wilson Technical (Mondays 6:30—9:30 pm)

9/11 & 9/18—Martin CC (6-10 pm)

9/16 - 9/25—Carteret CC

9/19 - 9/26—Gaston CC (Thursdays 6 - 10:00 pm)

October 2002

10/3 & 10/10 — Mitchell CC

October 2002 cont.

10/7 - 10/28—Wilson Technical (Mondays 6:30-9:30 pm)

10/12 - 12/26 — Forsyth Technical CC

10/14 - 12/9 — Coastal Carolina (Mondays 6-8 pm)

10/15—Central Piedmont

November 2002

11/6 & 11/13 — Martin CC (6-10 pm)

11/7 & 11/14 — Gaston CC (Thursdays 6 - 10 pm)

11/9 - 11/23—Forsyth Technical CC

December 2002

12/7 — Central Piedmont

How To Contact These Testing Centers

Carteret Community College, Pam Drum, 252-222-6023 or psd@carteret.cc.nc.us. Classes will meet on Monday and Wednesday evenings from 6:30 pm until 9:30 pm for four sessions.

Central Piedmont Community College, Kathie Cox, 704-330-6508

Coastal Carolina Community College, Steve Forney, 910-938-6340

Forsyth Technical Community College, Customer Service, 336-761-1002. Classes will be held on Saturdays from 9:00 am - 12:00 noon

Gaston County Community College, Sandy Hamilton, 704-922-6251 or Beth Hollars, 704-922-6250.

Martin Community College, Frankie McKeel, 252-792-1521, extension 261

Mitchell Community College, Diane Pritchard, 704-878-4266

Wilson Technical Community College, Karen Gliarmis, 252-246-1232 or kgliarmis@email.wilsontech.cc.nc.us.

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Service Technician Cont.

a service technician to a medical doctor.

A doctor, he said, conducts a complete examination of a patient. The doctor checks temperature, blood pressure, and a range of other aspects of the body using equipment that is up to date and accurate. Only then should the doctor make a diagnosis and determine what action should be taken.

In the same way, technicians start with temperature and pressures and get as much information as possible using properly calibrated equipment. Only after the information is gathered can a correction procedure be figured out and repairs made.

"You need to analyze the entire system before deciding what needs to be done," said Lecompte.

"Don't just be a parts changer. How would you feel if your doctor was a parts changer?"

Lecompte's point hit home because the technicians at the conference—who were willing to invest time and money to attend—know how important it is to service equipment properly.

A malfunctioning system is not just a system that does not provide enough heating or cooling. It is a system that has the potential to be unsafe or even dangerous.

The way a system is installed and maintained is a reflection of the installing contractor and servicing technician. A poor job could mean a negative reputation in the community, leading to future jobs lost due to bad word of mouth, resulting in decreased income.

An unhappy customer leads to callbacks and possible confrontations, which lead to aggravations

and stress.

HVACR is not an exact science even though it is based on the exact laws of physics. Not all systems will work perfectly. Actually, no system will work perfectly.

The secret is to make sure a system is running as close to perfect as possible — just as you hope your doctor is the most perfect person you know when

*"How would you
feel if your
doctor was a
parts changer?"*

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**USA-VICA Competition
Cont.**

accompanied him.

The Skills USA Championships is considered the largest single day of corporate volunteerism in America and valued at \$25 million in industry support of donated time, equipment, cash and materials. Contests are run and judged by industry using industry standards for employment

All participants demonstrated their technical knowledge and service skills during this all day event.